

110TH CONGRESS
1ST SESSION

H. R. 2773

To enhance research, development, demonstration, and commercial application
of biofuels related technologies, and for other purposes.

IN THE HOUSE OF REPRESENTATIVES

JUNE 19, 2007

Mr. LAMPSON introduced the following bill; which was referred to the
Committee on Science and Technology

A BILL

To enhance research, development, demonstration, and commercial application of biofuels related technologies, and for other purposes.

1 *Be it enacted by the Senate and House of Representa-*
2 *tives of the United States of America in Congress assembled,*

3 **SECTION 1. SHORT TITLE.**

4 This Act may be cited as the “Biofuels Research and
5 Development Enhancement Act” .

6 **SEC. 2. BIOFUELS AND BIOREFINERY INFORMATION CEN-**
7 **TER.**

8 (a) IN GENERAL.—The Secretary of Energy (in this
9 Act referred to as the “Secretary”), in cooperation with
10 the Secretary of Agriculture, shall establish a technology

1 transfer center to make available information on research,
2 development, and commercial application of technologies
3 related to biofuels and biorefineries, including—

4 (1) biochemical and thermochemical conversion
5 technologies capable of making fuels from
6 lignocellulosic feedstocks;

7 (2) biotechnology processes capable of making
8 biofuels with an emphasis on development of bio-
9 refinery technologies using enzyme-based processing
10 systems; and

11 (3) other advanced processes and technologies
12 that will enable the development of biofuels.

13 (b) ADMINISTRATION.—In administering this section,
14 the Secretary shall—

15 (1) continually update information provided by
16 the center;

17 (2) make information available on biotechnology
18 processes; and

19 (3) make information and assistance provided
20 by the center available for those involved in energy
21 research, development, demonstration, and commer-
22 cial application.

1 **SEC. 3. BIOFUELS AND ADVANCED BIOFUELS INFRASTRUC-**
2 **TURE.**

3 Section 932 of the Energy Policy Act of 2005 (42
4 U.S.C. 16232) is amendment by adding at the end the
5 following new subsection:

6 “(f) BIOFUELS AND ADVANCED BIOFUELS INFRA-
7 STRUCTURE.—

8 “(1) IN GENERAL.—The Secretary shall carry
9 out a program of research, development, and dem-
10 onstration as it relates to existing transportation
11 fuel distribution infrastructure and new alternative
12 distribution infrastructure. The program shall focus
13 on the physical and chemical properties of biofuels
14 and efforts to prevent or mitigate against adverse
15 impacts of those properties in the following areas:

16 “(A) Corrosion of metal, plastic, rubber,
17 cork, fiberglass, glues, or any other material
18 used in pipes and storage tanks.

19 “(B) Dissolving of storage tank sediments.

20 “(C) Clogging of filters.

21 “(D) Contamination from water or other
22 adulterants or pollutants.

23 “(E) Poor flow properties related to low
24 temperatures.

25 “(F) Oxidative and thermal instability in
26 long-term storage and use.

1 “(G) Increased volatile emissions.

2 “(H) Microbial contamination.

3 “(I) Problems associated with electrical
4 conductivity.

5 “(J) Increased nitrogen oxide emissions.”.

6 **SEC. 4. BIODIESEL.**

7 Not later than 180 days after the date of enactment
8 of this Act, the Secretary shall submit to Congress a re-
9 port on any research and development challenges inherent
10 in increasing to 5 percent the proportion of diesel fuel sold
11 in the United States that is biodiesel (as defined in section
12 757 of the Energy Policy Act of 2005 (42 U.S.C. 16105)).

13 **SEC. 5. BIORESEARCH CENTERS FOR SYSTEMS BIOLOGY**
14 **PROGRAM.**

15 Section 977(a)(1) of the Energy Policy Act of 2005
16 (42 U.S.C. 16317(a)(1)) is amended by inserting before
17 the period at the end the following: “, including the estab-
18 lishment of at least 11 bioresearch centers of varying
19 sizes, as appropriate, that focus on biofuels, of which at
20 least 2 centers shall be located in each of the 4 Petroleum
21 Administration for Defense Districts with no subdistricts
22 and at least 1 center shall be located in each of the subdis-
23 tricts of the Petroleum Administration for Defense Dis-
24 trict with subdistricts”.

1 **SEC. 6. GRANTS FOR BIOFUEL PRODUCTION RESEARCH**
2 **AND DEVELOPMENT IN CERTAIN STATES.**

3 (a) IN GENERAL.—The Secretary shall provide
4 grants to eligible entities for research, development, dem-
5 onstration, and commercial application of biofuel produc-
6 tion technologies in States with low rates of ethanol pro-
7 duction, including low rates of production of cellulosic bio-
8 mass ethanol, as determined by the Secretary.

9 (b) ELIGIBILITY.—To be eligible to receive a grant
10 under this section, an entity shall—

11 (1)(A) be an institution of higher education (as
12 defined in section 2 of the Energy Policy Act of
13 2005 (42 U.S.C. 15801)) located in a State de-
14 scribed in subsection (a); or

15 (B) be a consortium including at least 1 such
16 institution of higher education, and industry, State
17 agencies, Indian tribal agencies, or local government
18 agencies located in the State; and

19 (2) have proven experience and capabilities with
20 relevant technologies.

21 (c) AUTHORIZATION OF APPROPRIATIONS.—There
22 are authorized to be appropriated to the Secretary to carry
23 out this section \$25,000,000 for each of fiscal years 2008
24 through 2010.

1 **SEC. 7. BIOREFINERY ENERGY EFFICIENCY.**

2 Section 932 of Energy Policy Act of 2005 (42 U.S.C.
3 16232), is amended by adding at the end the following
4 new subsection:

5 “(g) BIOREFINERY ENERGY EFFICIENCY.—The Sec-
6 retary shall establish a program of research, development,
7 demonstration, and commercial application for increasing
8 energy efficiency and reducing energy consumption in the
9 operation of biorefinery facilities.”.

10 **SEC. 8. STUDY OF INCREASED CONSUMPTION OF ETHANOL-**
11 **BLENDED GASOLINE WITH HIGHER LEVELS**
12 **OF ETHANOL.**

13 (a) IN GENERAL.—The Secretary, in cooperation
14 with the Secretary of Agriculture, the Administrator of the
15 Environmental Protection Agency, and the Secretary of
16 Transportation, shall conduct a study of the methods of
17 increasing consumption in the United States of ethanol-
18 blended gasoline with levels of ethanol that are not less
19 than 10 percent and not more than 40 percent.

20 (b) STUDY.—The study under subsection (a) shall in-
21 clude—

22 (1) a review of production and infrastructure
23 constraints on increasing consumption of ethanol;

24 (2) an evaluation of the environmental con-
25 sequences of the ethanol blends described in sub-
26 section (a) on evaporative and exhaust emissions

1 from on-road, off-road, and marine vehicle engines;
2 and

3 (3) an evaluation of the consequences of the
4 ethanol blends described in subsection (a) on the op-
5 eration, durability, and performance of on-road, off-
6 road, and marine vehicle engines.

7 (c) REPORT.—Not later than 1 year after the date
8 of enactment of this Act, the Secretary shall submit to
9 Congress a report describing the results of the study con-
10 ducted under this section.

11 **SEC. 9. STUDY OF OPTIMIZATION OF FLEXIBLE FUELED VE-**
12 **HICLES TO USE E-85 FUEL.**

13 (a) IN GENERAL.—The Secretary shall conduct a
14 study of whether optimizing flexible fueled vehicles to op-
15 erate using E-85 fuel would increase the fuel efficiency
16 of flexible fueled vehicles.

17 (b) REPORT.—Not later than 180 days after the date
18 of enactment of this Act, the Secretary shall submit to
19 the Committee on Science and Technology of the House
20 of Representatives the Committee on Energy and Natural
21 Resources of the Senate a report that describes the results
22 of the study under this section, including any rec-
23 ommendations of the Secretary.

1 **SEC. 10. STUDY OF ENGINE DURABILITY ASSOCIATED WITH**
2 **THE USE OF BIODIESEL.**

3 (a) IN GENERAL.—Not later than 30 days after the
4 date of enactment of this Act, the Secretary shall initiate
5 a study on the effects of the use of biodiesel on engine
6 durability.

7 (b) COMPONENTS.—The study under this section
8 shall include—

9 (1) an assessment of whether the use of bio-
10 diesel in conventional diesel engines lessens engine
11 durability; and

12 (2) an assessment of the effects referred to in
13 subsection (a) with respect to biodiesel blends at
14 varying concentrations, including the following per-
15 centage concentrations of biodiesel:

16 (A) 5 percent biodiesel.

17 (B) 10 percent biodiesel.

18 (C) 20 percent biodiesel.

19 (D) 30 percent biodiesel.

20 (E) 100 percent biodiesel.

21 (c) REPORT.—Not later than 1 year after the date
22 of enactment of this Act, the Secretary shall submit to
23 the Committee on Science and Technology of the House
24 of Representatives the Committee on Energy and Natural
25 Resources of the Senate a report that describes the results

1 of the study under this section, including any rec-
 2 ommendations of the Secretary.

3 **SEC. 11. BIOENERGY RESEARCH AND DEVELOPMENT, AU-**
 4 **THORIZATION OF APPROPRIATION.**

5 (a) Section 931 of the Energy Policy Act of 2005 (42
 6 U.S.C. 16231) is amended—

7 (1) in subsection (b)—

8 (A) at the end of paragraph (2) by striking
 9 “and”;

10 (B) at the end of paragraph (3) by striking
 11 the period and inserting “; and”; and

12 (C) by adding at the end the following new
 13 paragraph:

14 “(4) \$963,000,000 for fiscal year 2010.”; and

15 (2) in subsection (c)—

16 (A) in paragraph (2), by striking
 17 “\$251,000,000” and inserting “\$377,000,000”;

18 (B) in paragraph (3), by striking
 19 “\$274,000,000” and inserting “\$398,000,000”;

20 and

21 (C) by adding at the end the following new
 22 paragraph:

23 “(4) \$419,000,000 for fiscal year 2010, of
 24 which \$150,000,00 shall be for section 932(d).”.

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